



Construction and Demolition Wastes And Clean Rubble

Technical Guidance Document SW 94-02

Construction and demolition (C&D) waste is solid waste generated during construction or demolition activities. Clean rubble is also generated during construction or demolition activities, but it differs in composition from C&D waste. This document explains the definitions of C&D waste and clean rubble and acceptable methods for disposal of both.

Construction and Demolition Waste

Definition of C&D waste

The current definition of C&D waste according to K.S.A. 65-3402 (u) is: "solid waste resulting from the construction, remodeling, repair and demolition of structures, roads, sidewalks and utilities; untreated wood and untreated sawdust from any source; treated wood from construction or demolition projects; small amounts of municipal solid waste generated by the consumption of food and drinks at construction or demolition sites, including, but not limited to, cups, bags and bottles; furniture* and appliances from which ozone depleting chlorofluorocarbons have been removed in accordance with the provisions of the federal clean air act; solid waste consisting of motor vehicle window glass; and solid waste consisting of vegetation from land clearing and grubbing, utility maintenance, and seasonal or storm related cleanup. Such wastes include, but are not limited to, bricks, concrete, and other masonry materials, roofing materials, soil, rock, wood, wood products, wall or floor coverings, plaster, drywall, plumbing fixtures, electrical wiring, electrical components containing no hazardous materials, nonasbestos insulation and construction related packaging**."

*Furniture does not include computer monitors or other computer components, TVs, VCRs, stereos, or other similar waste electronics.

**According to K.S.A. 65-3402 (dd), " 'construction related packaging' means small

quantities of packaging wastes that are generated in the construction, remodeling or repair of structures and related appurtenances. 'Construction related packaging' does not include packaging wastes that are generated at retail establishments selling construction materials, chemical containers generated from any source or packaging generated during maintenance of existing structures."

Wastes which may be disposed in a C&D landfill

In addition to the items *explicitly* identified as C&D waste in K.S.A. 65-3402 (u), the Kansas Department of Health and Environment (KDHE) considers the following materials as *acceptable* for disposal in a C&D landfill:

1. Wooden pallets;
2. Street sweepings (litter must be removed; concentrations of metals, VOCs, and other compounds must be below regulatory levels);
3. Floor tile, siding, and roofing material containing non-friable asbestos. This material should be:
 - a. handled so it remains non-friable (e.g., may have to be manually removed prior to demolition of structure);
 - b. transported wet (covered with a mist spray to suppress dust) or transported with tarp cover; and
 - c. covered immediately at the landfill;
4. Trees, brush, sod, and incidental quantities of leaves and grass;
5. Metal scrap (e.g. tie strapping);

6. Processed wood which is not considered to present a significant risk of adverse impacts to groundwater quality, including coated wood (e.g., painted, stained, varnished) from any source and engineered wood (e.g., plywood, laminated wood, oriented-strand or particle board) from any source, except as noted in item 3 below;
7. Mobile homes and trailers (except the tires and fuel tanks). KDHE encourages the recycling of metal components.

Dry mud trap solids (those that pass the paint filter test, EPA method SW 846/9095) from commercial car washes may be applied as cover at a C&D landfill.

Wastes which may **not** be disposed in a C&D landfill

Certain wastes are unacceptable for disposal in a C&D landfill. K.S.A. 65-3402 (u) states: " 'construction and demolition waste' shall not include waste material containing friable asbestos, garbage, appliances from which ozone depleting chlorofluorocarbons have not been removed in accordance with the provisions of the federal clean air act, electrical equipment containing hazardous materials, tires, drums and containers even though such wastes resulted from construction and demolition activities."

In addition to the items *explicitly* identified in K.S.A. 65-3402 (u) as not being C&D waste, KDHE considers the following wastes *unacceptable* for disposal in a C&D landfill:

1. Processed tires - i.e. cut or baled;
2. Mud trap wastes from businesses other than commercial car washes;
3. Processed wood which is considered to present a significant risk of adverse impacts to groundwater quality, including wood disposed from industrial manufacturing processes where the wood is treated with creosote, oilborne preservatives (e.g., pentachlorophenol or copper naphthenate) or waterborne preservatives (e.g., chromated copper arsenate (CCA), ammoniacal copper

zinc arsenate (ACZA), or ammoniacal copper quarternary compound (ACQ));

4. Bagged or bulk quantities of leaves and/or grass clippings;
5. Trash bags unless demonstrated to contain only acceptable wastes.

Disposal options for C&D wastes

Acceptable C&D wastes may be disposed of in either a municipal solid waste landfill (MSWLF) or in a C&D landfill. Both MSWLFs and C&D landfills must be approved by KDHE through a permit process. But because of the relatively inert nature of the wastes disposed in C&D landfills, these landfills do not have to meet design standards as strict as those for MSWLFs.

Most C&D landfills will, on occasion, receive waste that is not appropriate for disposal. Therefore, all C&D landfills should conduct waste screening (i.e., inspect incoming waste and remove unacceptable materials) and maintain a dumpster or rolloff container onsite for unacceptable wastes which are received at the landfill. Waste screening is covered in Technical Guidance Document SW 02-01, and storage of unapproved wastes screened from construction and demolition landfills is addressed in Bureau of Waste Management Policy 02-01.

Clean Rubble

Definition of clean rubble

According to K.S.A. 65-3402 (w), "clean rubble means inert uncontaminated construction and demolition waste which includes concrete and concrete products, reinforcing steel, asphalt pavement, brick, soil or rock."

K.S.A. 65-3415b lists "clean rubble" as a waste which is exempt from the state solid waste tonnage fee. The definition of "construction and demolition waste" in K.S.A. 65-3402(u) states "Clean rubble that is mixed with other construction and demolition waste **during demolition or transportation** shall be considered construction and demolition waste."

Clean rubble that is brought separately to a construction and demolition landfill or a municipal solid waste landfill is **not** subject to the tonnage fee, even if the clean rubble is mixed with construction and demolition waste or municipal solid waste upon disposal.

Disposal of clean rubble

The stable nature of the materials in clean rubble means it may be disposed of with C&D waste, or it may be disposed of separately at a clean rubble site. However, clean rubble that is mixed with other C&D waste during demolition or transportation is considered to be C&D waste and must be disposed of at either a MSWLF or at a C&D landfill.

Unlike a C&D landfill, state statutes do not require a solid waste permit for operation of a site that accepts only clean rubble. However, a clean rubble site may be subject to local city or county requirements such as local approval (zoning or land use) and local ordinances.

Approval from the Division of Water Resources (DWR) may be required if the site is located in the 100-year flood plain. The operation and appearance of the site must not create a public nuisance or adversely affect the public health or the environment.

For additional information regarding proper management of solid waste, you may contact the Bureau of Waste Management at (785)296-1600, or the address at the top of this document, or visit the Bureau's website at www.kdhe.state.ks.us/waste.